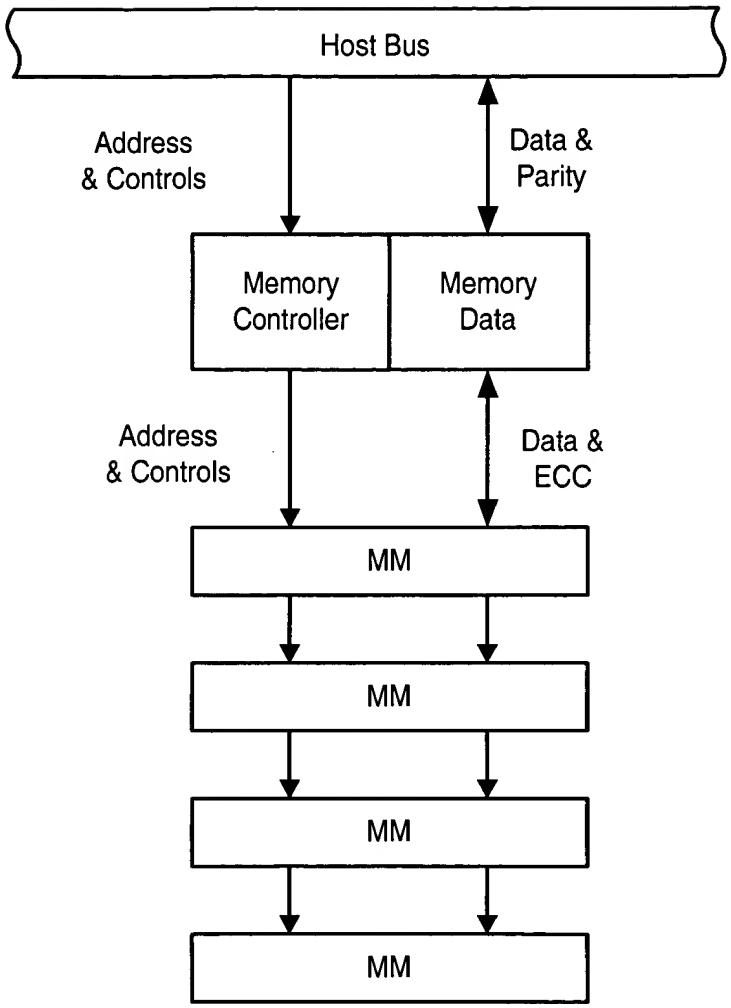


Figure 1
Prior Art

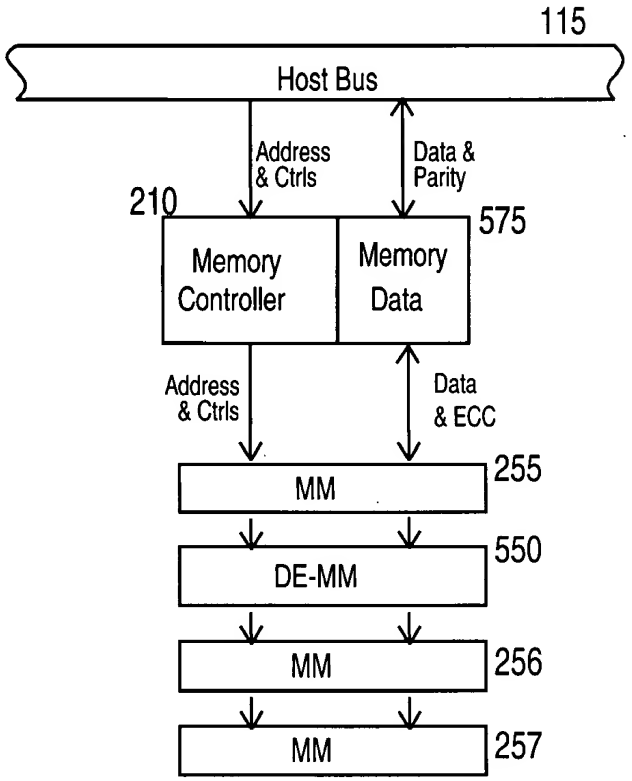


Figure 2a

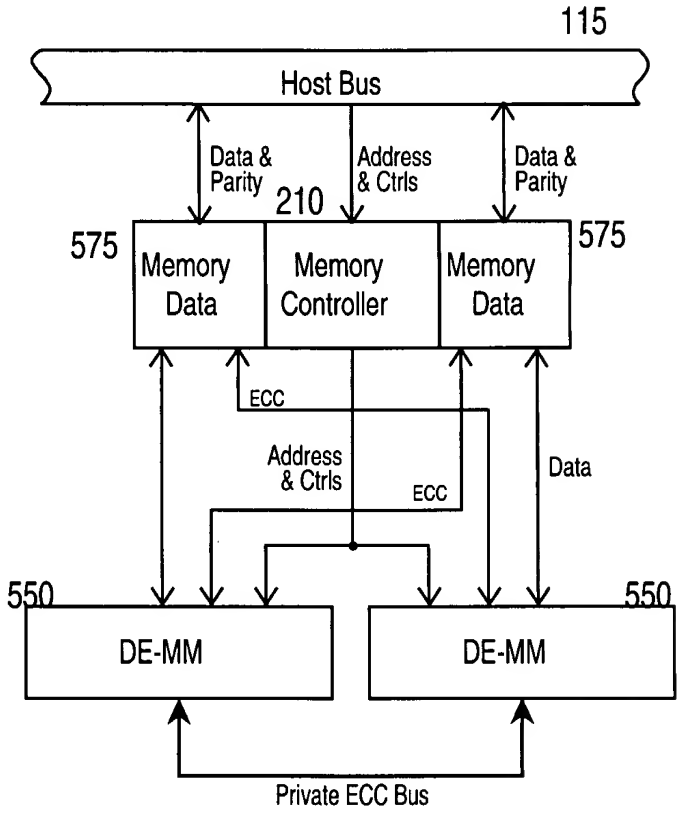


Figure 2b

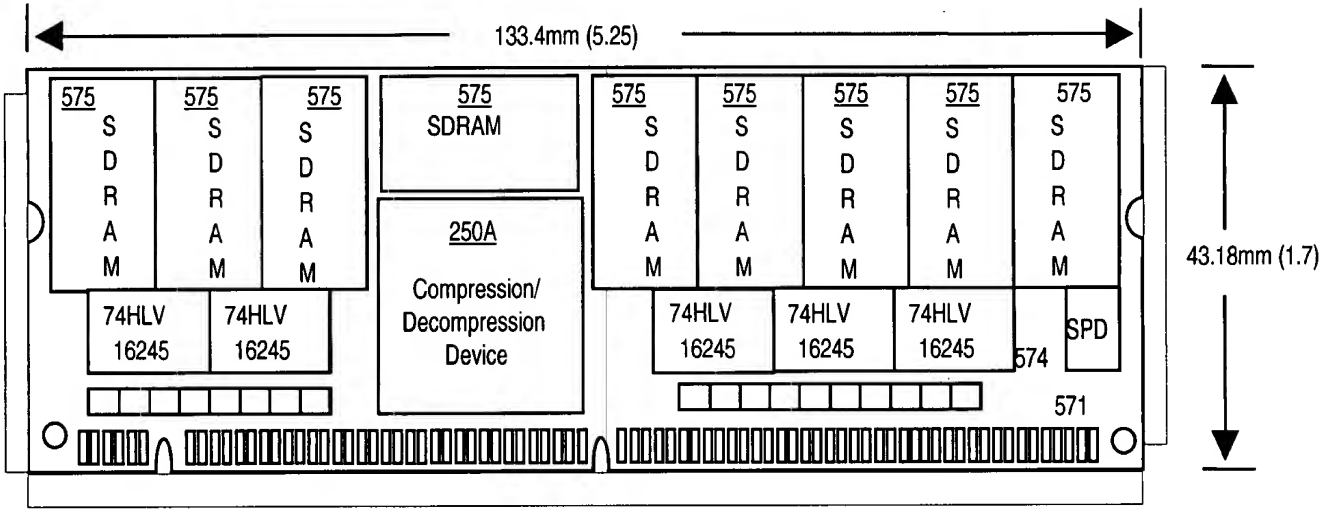


Figure 3a

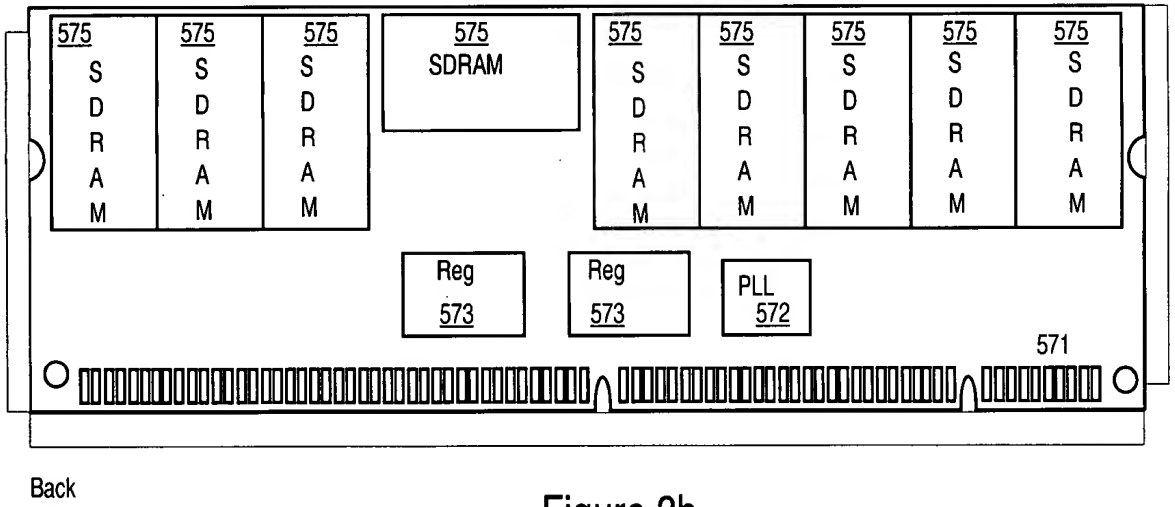


Figure 3b

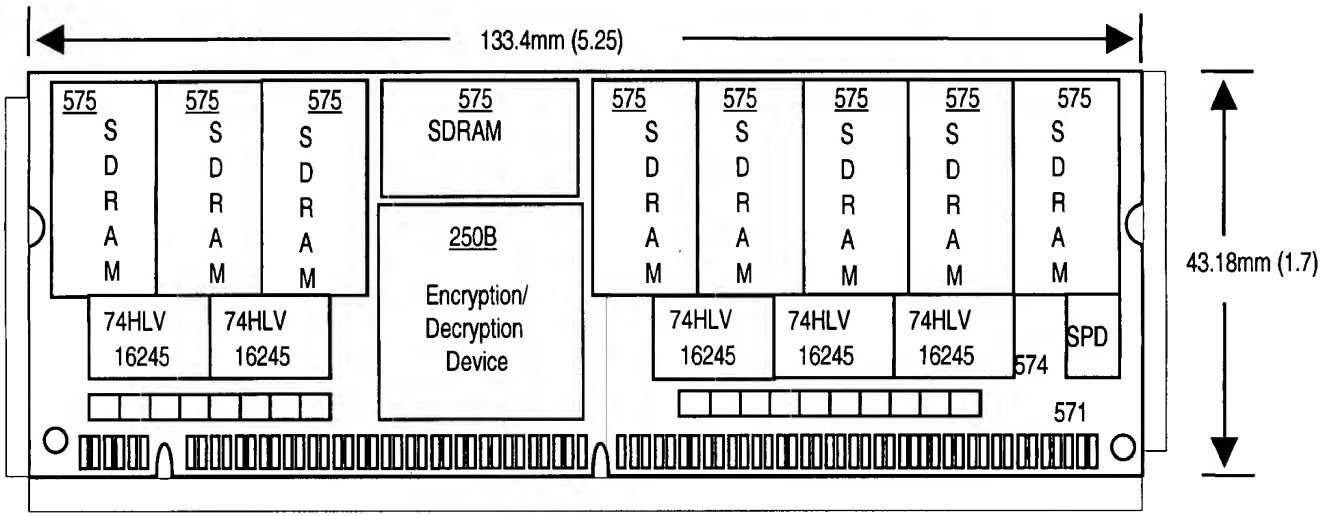


Figure 4a

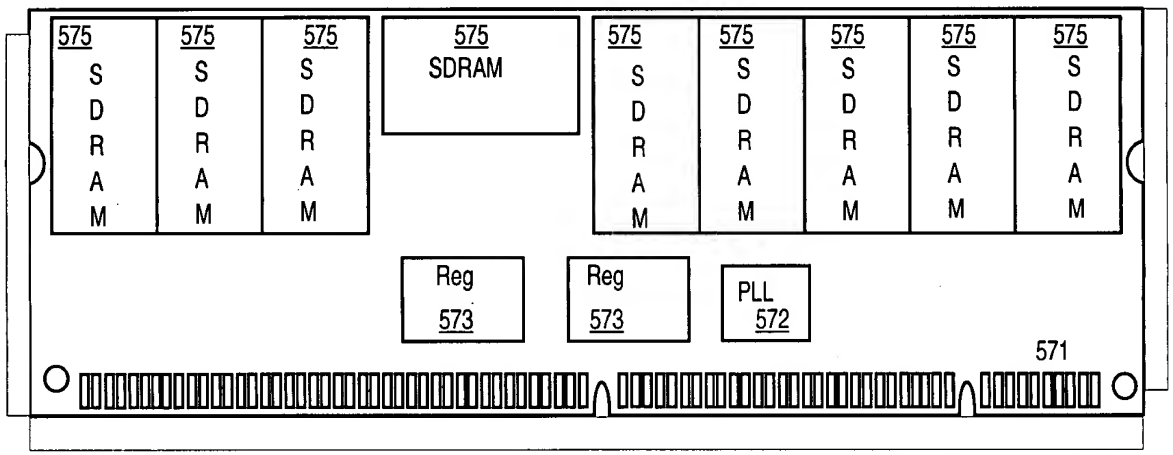


Figure 4b

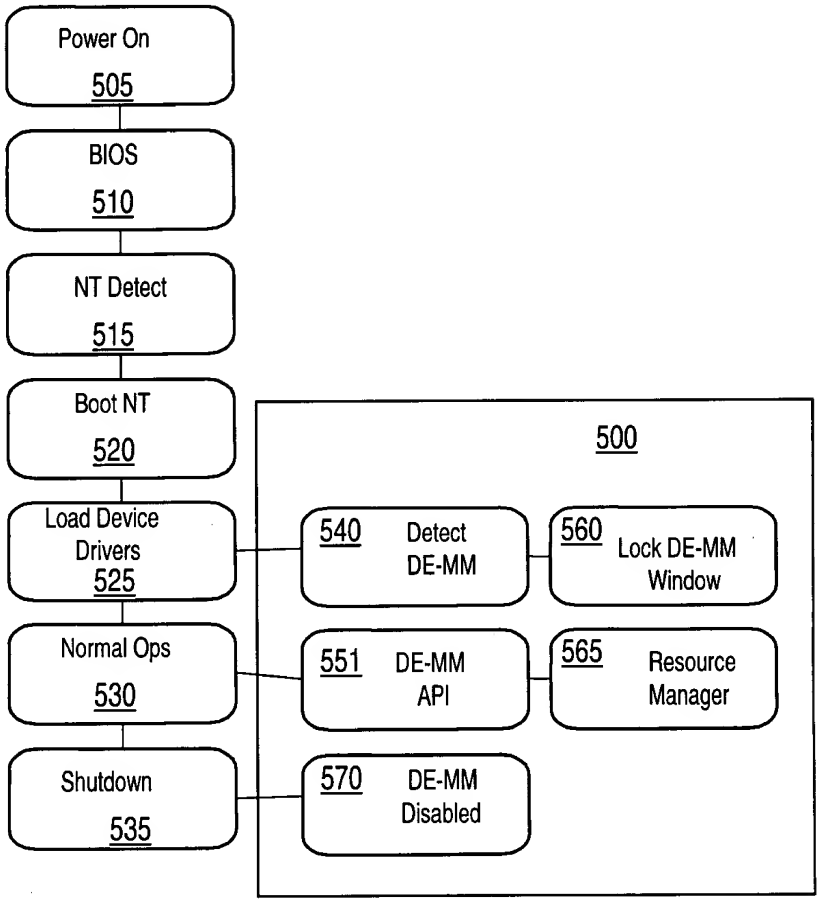


Figure 5

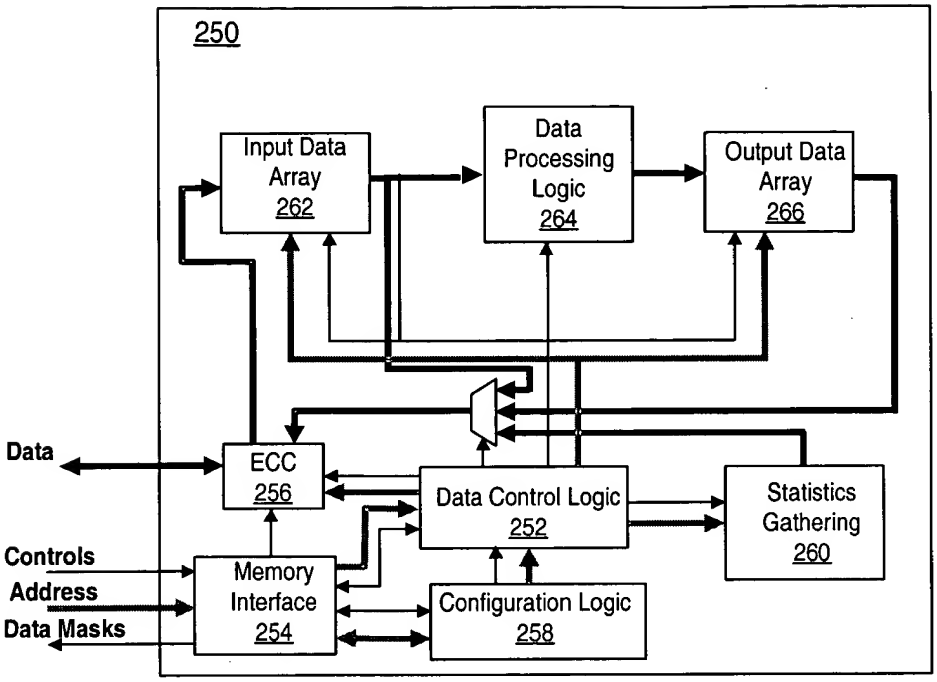
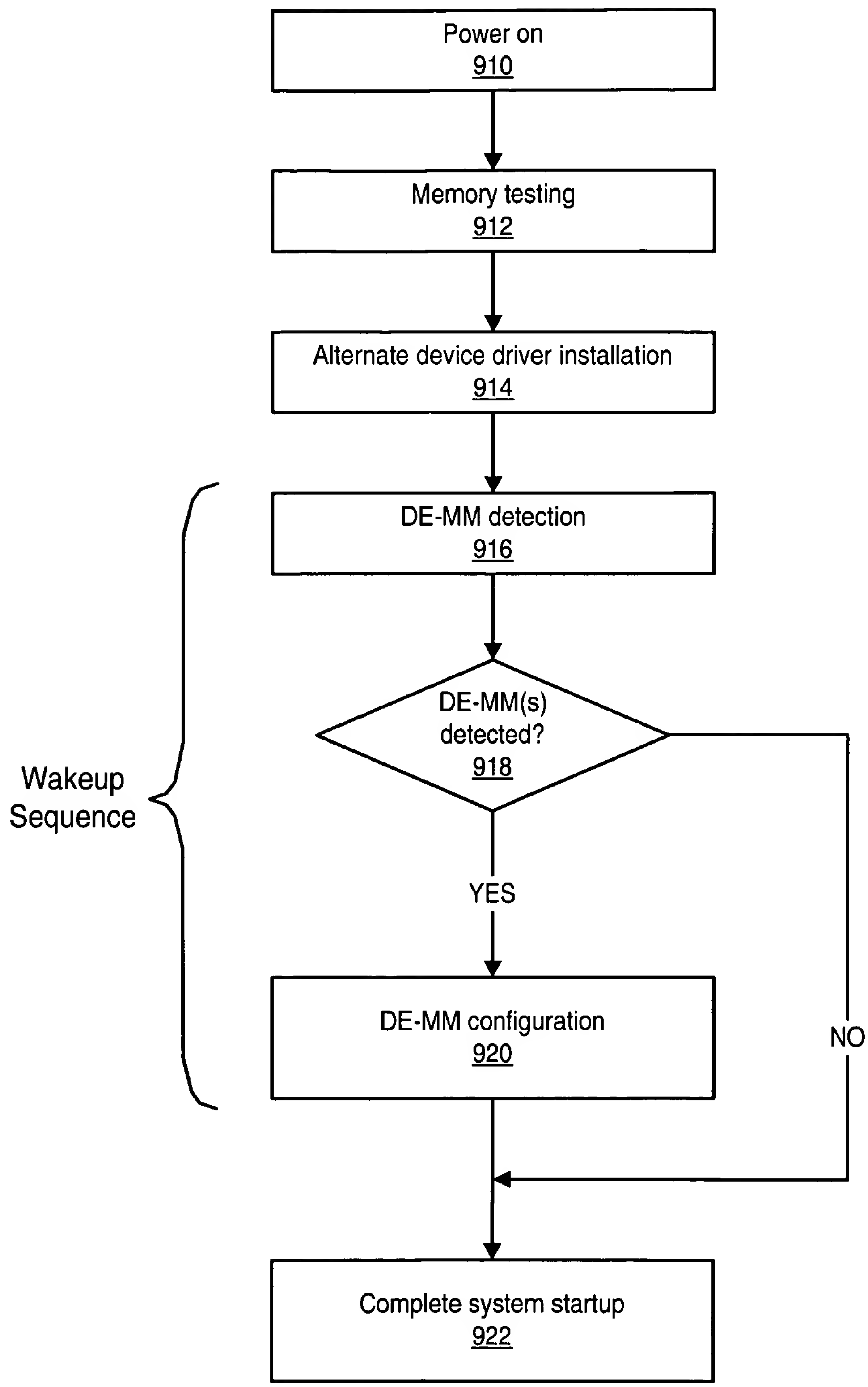


Figure 6

DE-MM device logic



Power on
910
Memory testing
912
Alternate device driver installation
914
DE-MM detection
916
DE-MM(s)
detected?
918
YES
NO
DE-MM configuration
920
Complete system startup
922
Wakeup
Sequence

Figure 7a

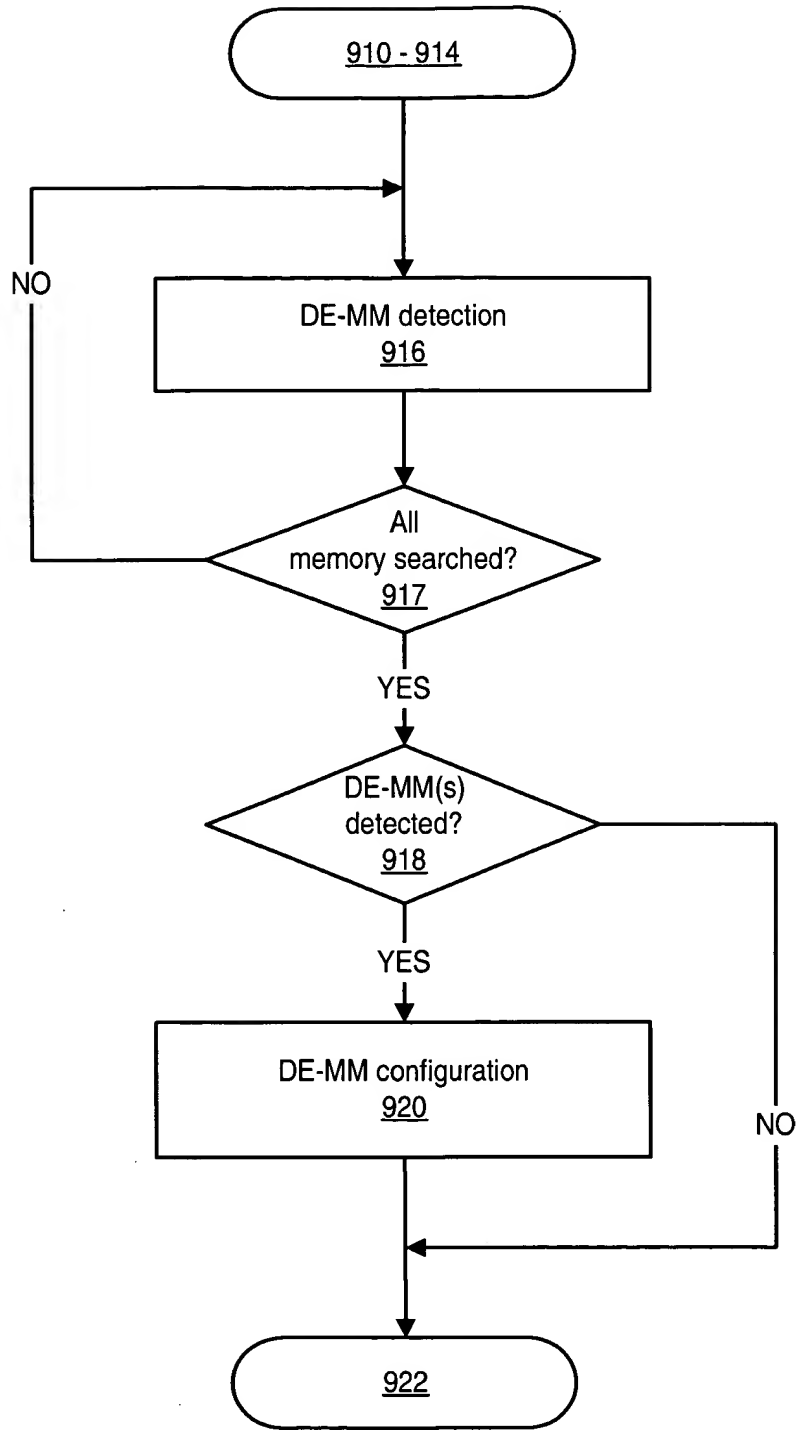

910 - 914
NO
DE-MM detection
916
All
memory searched?
917
YES
DE-MM(s)
detected?
918
YES
DE-MM configuration
920
NO
922

Figure 7b

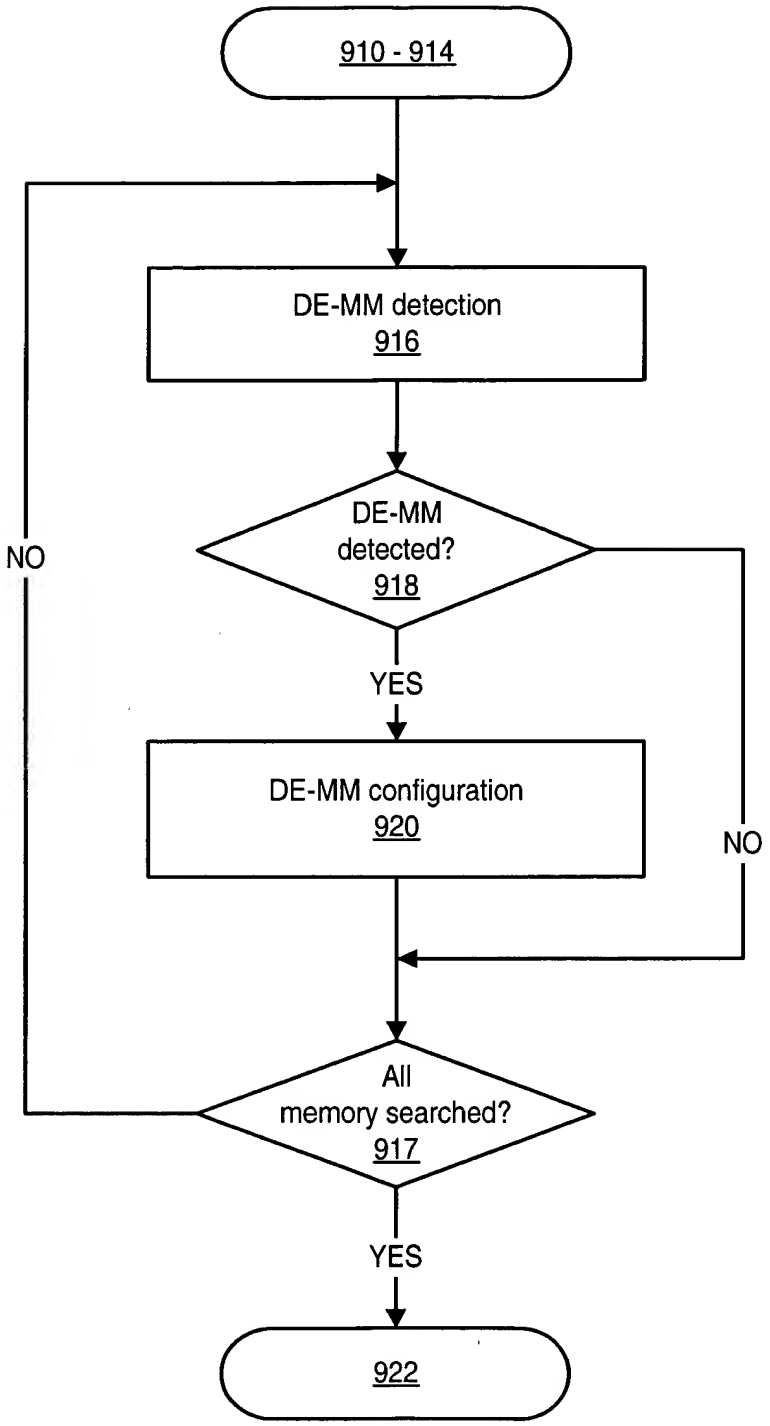

910 - 914
DE-MM detection
916
DE-MM
detected?
918
NO
YES
DE-MM configuration
920
NO
All
memory searched?
917
YES
922

Figure 7c

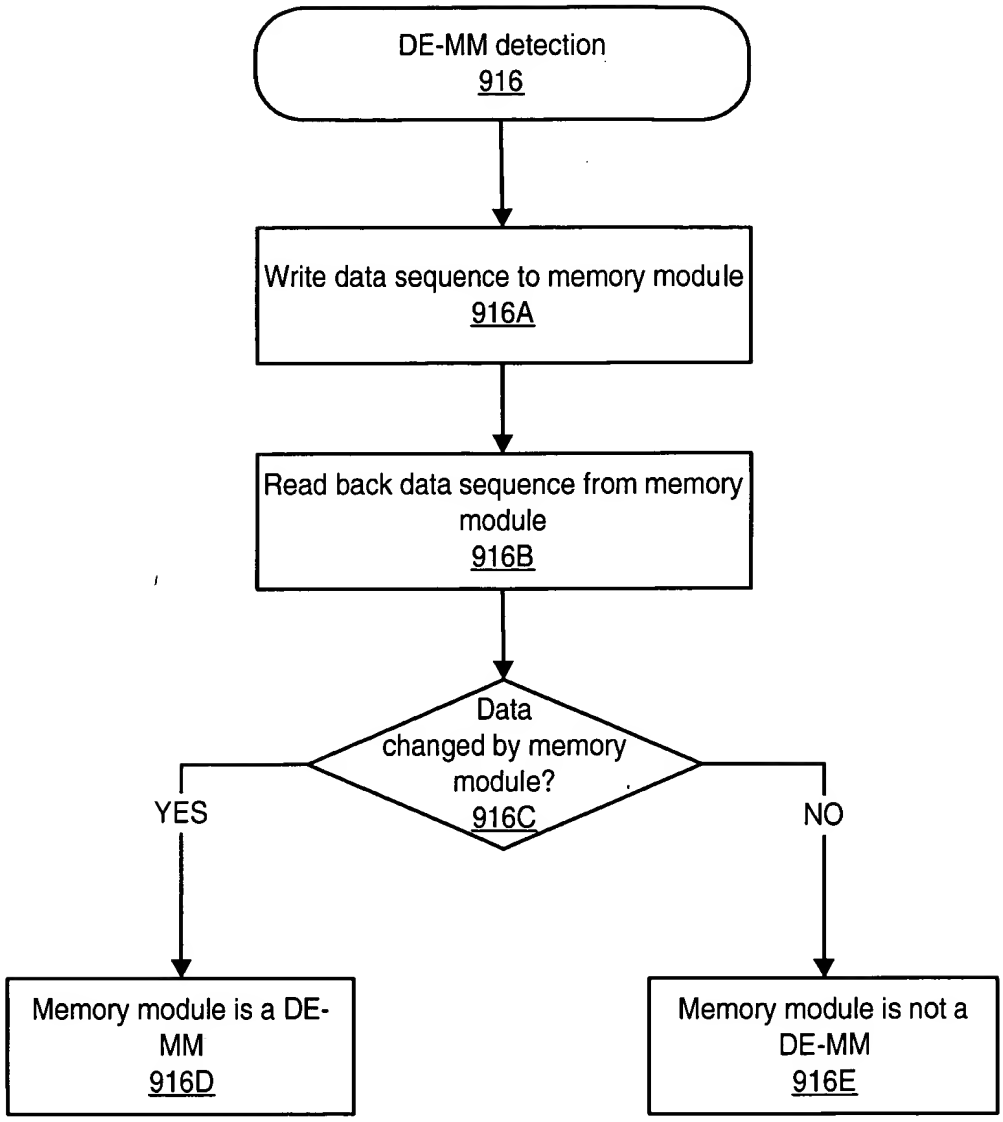


Figure 8

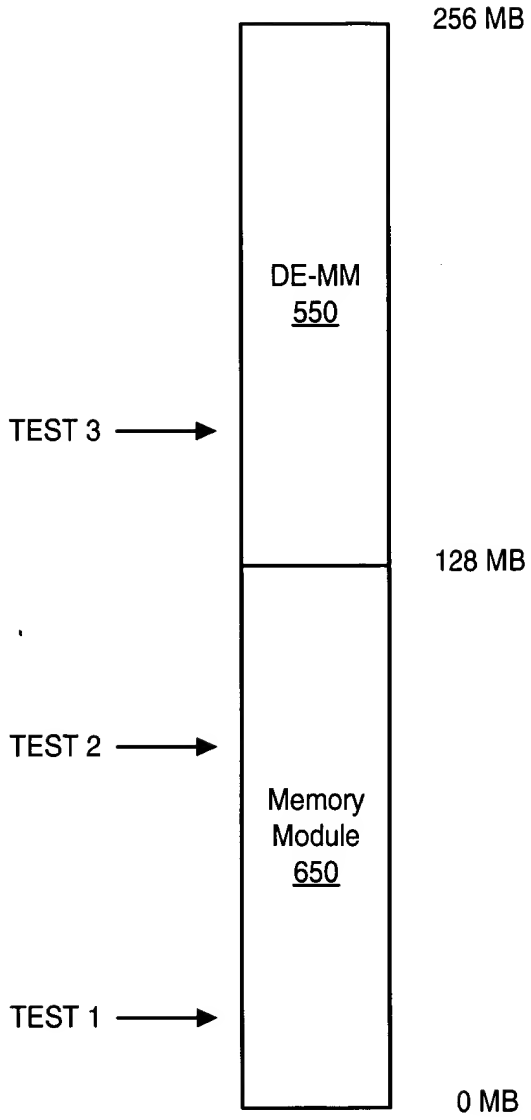

256 MB
DE-MM
550
TEST 3
128 MB
TEST 2
Memory
Module
650
TEST 1
0 MB

Figure 9

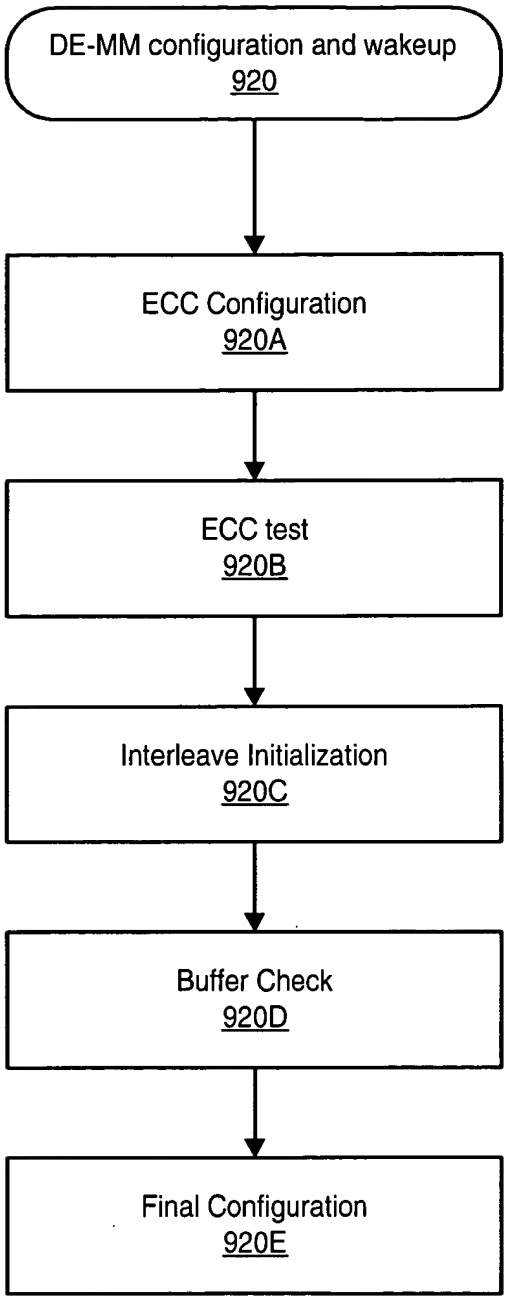

DE-MM configuration and wakeup
920
ECC Configuration
920A
ECC test
920B
Interleave Initialization
920C
Buffer Check
920D
Final Configuration
920E

Figure 10

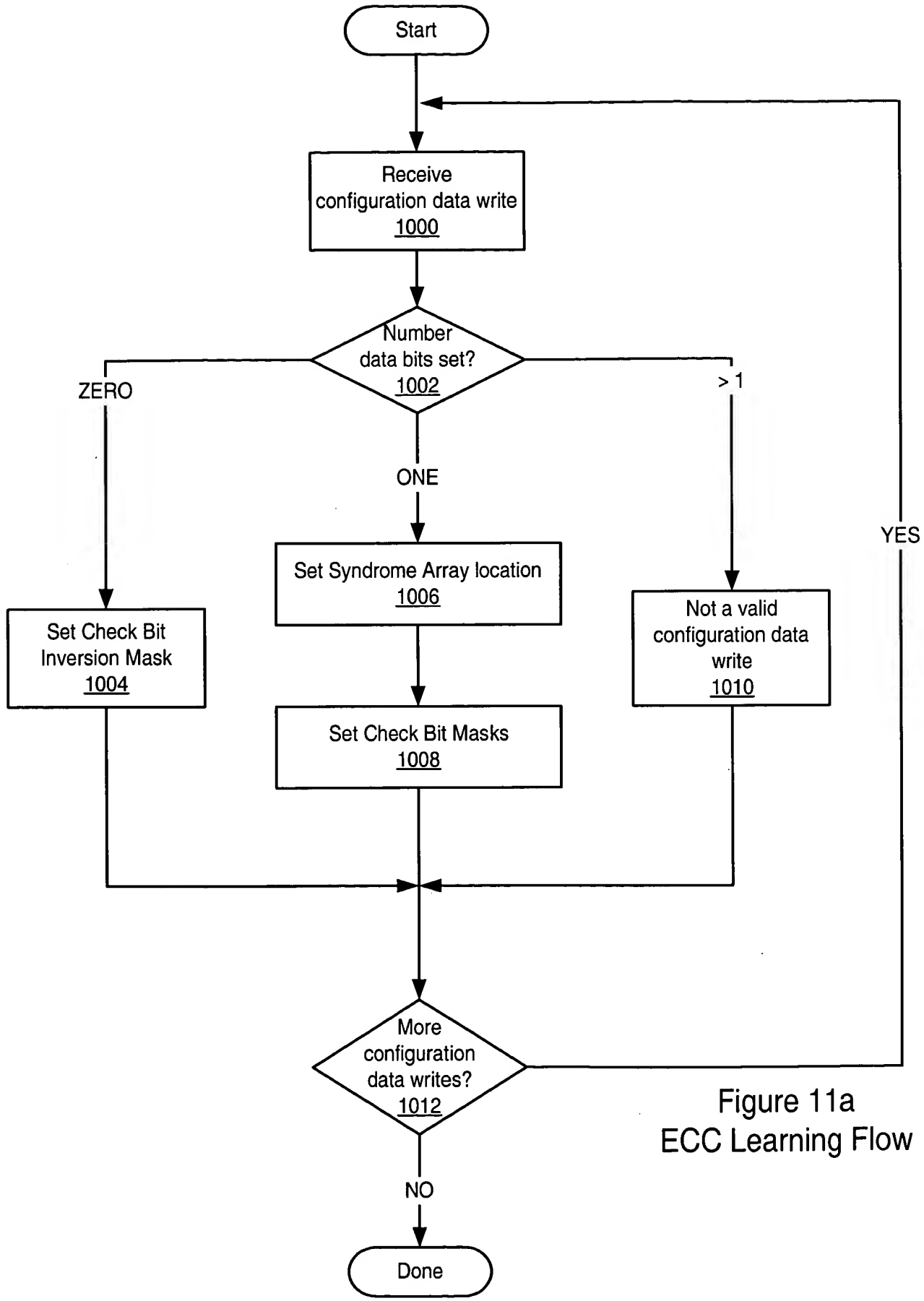


Figure 11a
ECC Learning Flow

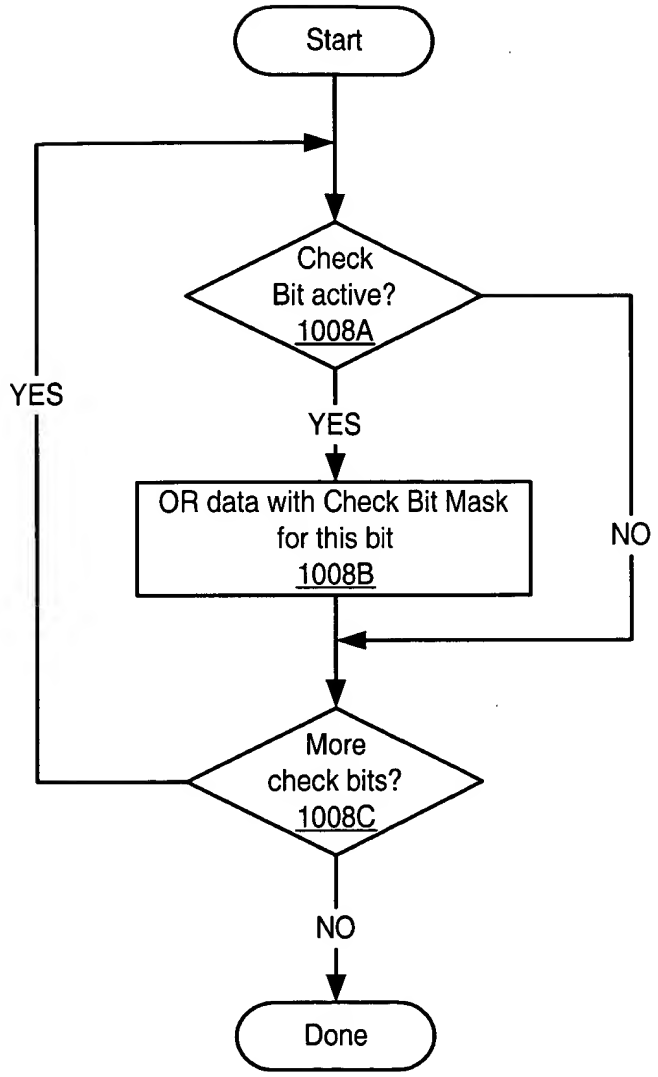


Figure 11b
Learning Check Bit Masks

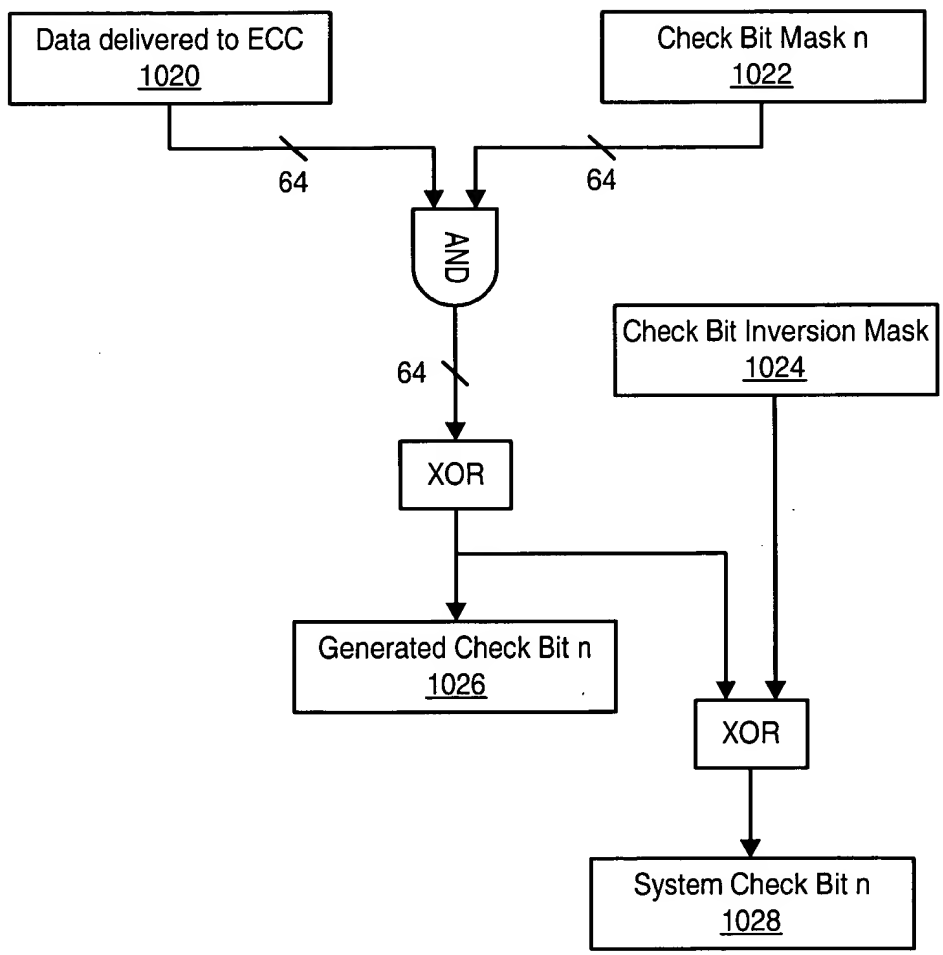


Figure 12
Check Bit Generation

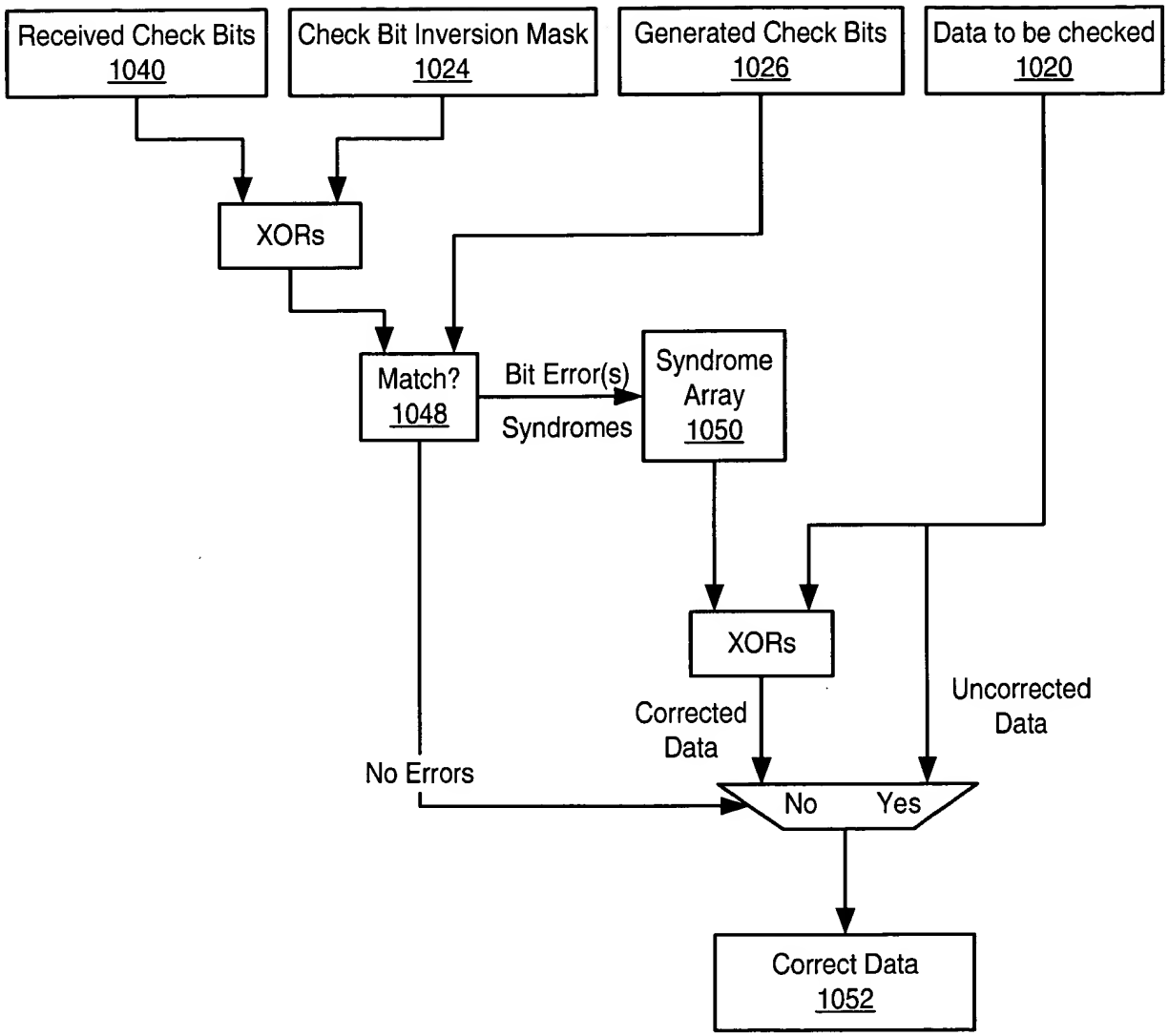


Figure 13
Data Checking and Correction

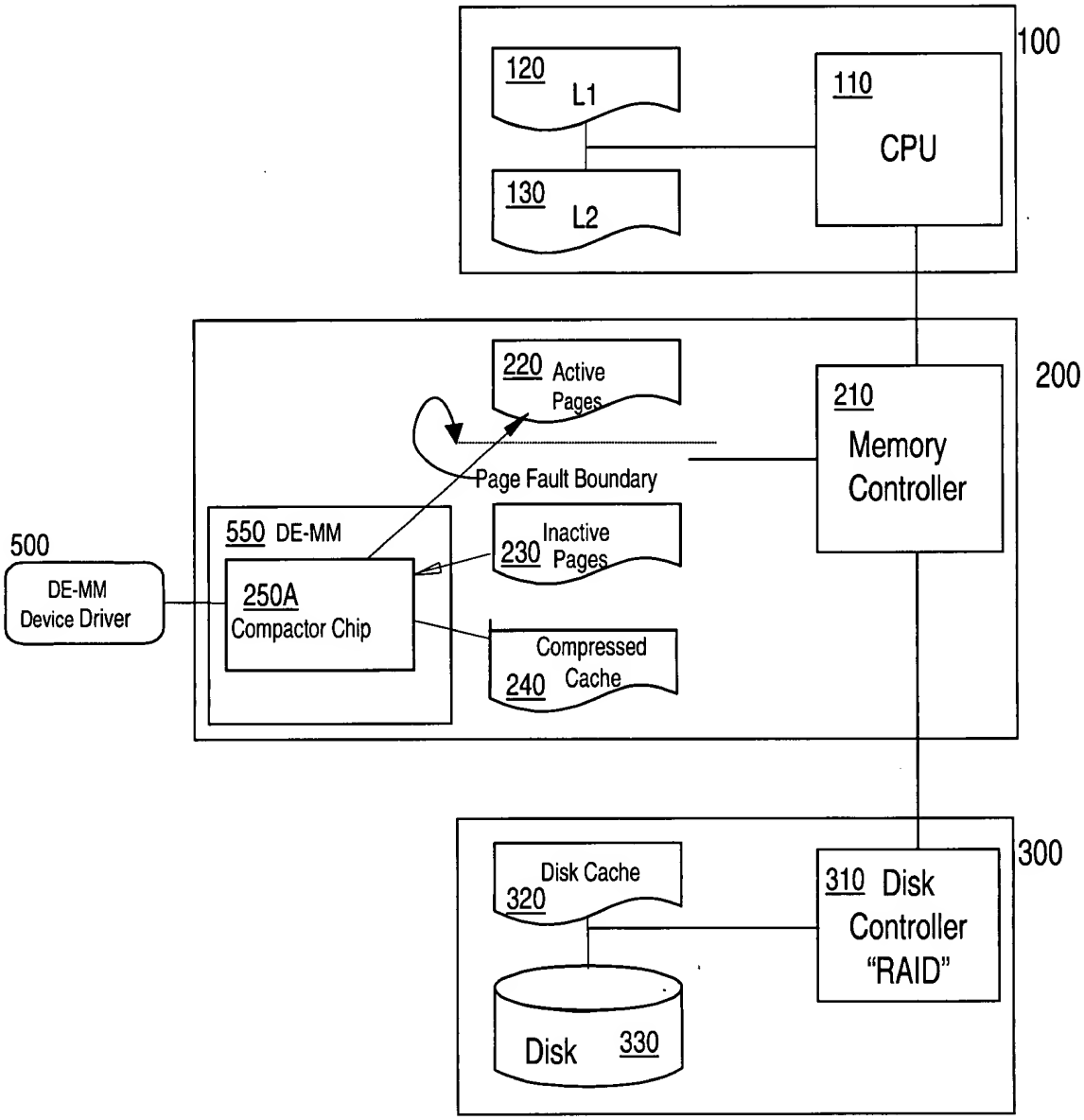


Figure 14

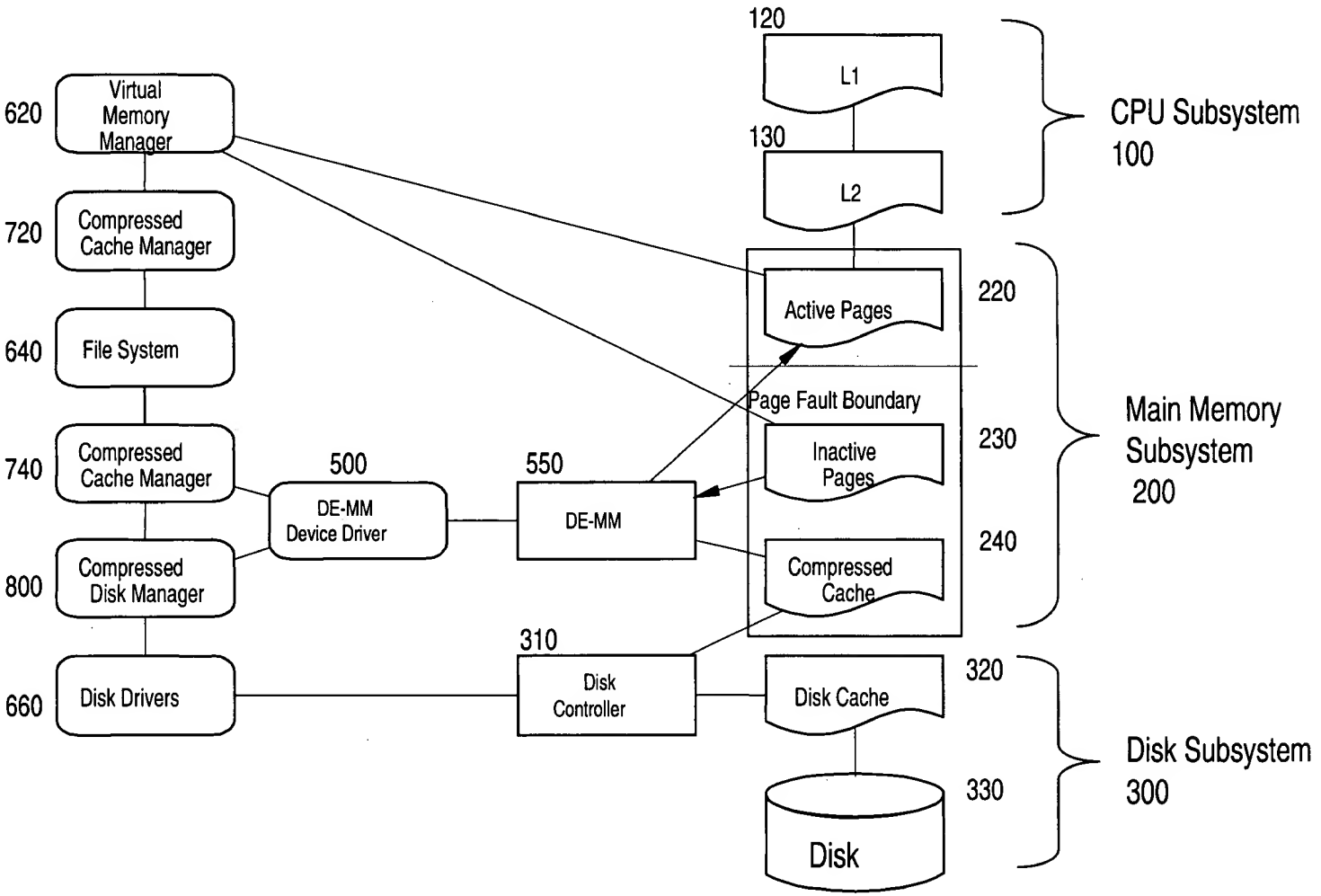


Figure 15